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Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2008; month=5; day=30; hr=12; min=17; sec=48; ms=565;]

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Reviewer Comments:

<210> 30

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 30

gcttatggcg cgcctcagga ctggagcttg ctccgc

36n

21

Please delete the extra n which appears beside the total number of bases 36 and also remove the end of file text which is below the bases(21) as shown in the attachment above.

Application No: 10590956 Version No: 1.0

Input Set:**Output Set:**

Started: 2008-05-09 16:08:23.466
Finished: 2008-05-09 16:08:25.990
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 524 ms
Total Warnings: 24
Total Errors: 7
No. of SeqIDs Defined: 30
Actual SeqID Count: 30

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
W 402	Undefined organism found in <213> in SEQ ID (2)
W 402	Undefined organism found in <213> in SEQ ID (3)
W 402	Undefined organism found in <213> in SEQ ID (4)
W 402	Undefined organism found in <213> in SEQ ID (5)
W 402	Undefined organism found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 402	Undefined organism found in <213> in SEQ ID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (23)
W 213	Artificial or Unknown found in <213> in SEQ ID (24)
W 213	Artificial or Unknown found in <213> in SEQ ID (25)
W 213	Artificial or Unknown found in <213> in SEQ ID (26)

Input Set:

Output Set:

Started: 2008-05-09 16:08:23.466
Finished: 2008-05-09 16:08:25.990
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 524 ms
Total Warnings: 24
Total Errors: 7
No. of SeqIDs Defined: 30
Actual SeqID Count: 30

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (27)
W 213	Artificial or Unknown found in <213> in SEQ ID (28)
W 213	Artificial or Unknown found in <213> in SEQ ID (29)
W 213	Artificial or Unknown found in <213> in SEQ ID (30)
E 342	'n' position not defined found at POS: 39 SEQID(30)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 39 SEQID(30)
E 323	Invalid/missing amino acid numbering SEQID (30)at Protein (1)
E 323	Invalid/missing amino acid numbering SEQID (30) POS (1)
E 323	Invalid/missing amino acid numbering SEQID (30)at Protein (5)
E 323	Invalid/missing amino acid numbering SEQID (30)at Protein (10)
E 253	The number of bases differs from <211> Input: 36 Calculated:39

SEQUENCE LISTING

<110> Genencor International, Inc.
Bower, Benjamin
Mitchinson, Colin
Larenas, Edmund

<120> Cellulase Fusion Protein and Heterologous Cellulase Fusion
Construct Encoding the Same

<130> GC832-PCT

<140> 10590956

<141> 2008-05-09

<150> PCT/US2005/010242

<151> 2005-03-25

<150> US 60/556,711

<151> 2004-03-25

<160> 30

<170> PatentIn version 3.2

<210> 1

<211> 1570

<212> DNA

<213> Trichoderma reesei

<400> 1

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acttgactc aacagacagg ctccgtggtc atcgacgcca actggcgtg gactcacgct	180
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caccgctggc gccaaagtacg gcacggggta ctgtgacagc cagtgtcccc gcgatctgaa	660
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tgggtgcggc ggaacttact ccgataacag atatggcggc acttgcgatc ccgatggctg	900
cgactggaac ccataccgcc tgggcaacac cagcttctac ggccctggct caagctttac	960
cctcgatacc accaagaaat tgaccgttgt caccagttc gagacgtcgg gtgccatcaa	1020
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ctctggcaac gagctcaacg atgattactg cacagctgag gaggcagaat tcggcggatc	1140
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catcaagttc ggaccattg gcagcaccgg caaccctagc ggcggaacc ctcccgccgg	1500
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1570

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<211> 51

<212> DNA

<213> *Trichoderma reesei*

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<210> 3

<211> 1438

<212> DNA

<213> *Trichoderma reesei*

<400> 3

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actcacgcta	cgaacagcag	cacgaactgc	tacgatggca	acacttggag	ctcgacccta	180
tgtcctgaca	acgagacctg	cgcgaagaac	tgctgtctgg	acggtgccgc	ctacgcgtcc	240
acgtacggag	ttaccacgag	cggtaacagc	ctctccattg	gctttgtcac	ccagtctgcg	300
cagaagaacg	ttggcgctcg	cctttacctt	atggcgagcg	acacgaccta	ccaggaattc	360
acctgcttg	gcaacgagtt	ctctttcgat	gttgatgttt	cgcagctgcc	gtaagtgact	420
taccatgaac	ccctgacgta	tcttcttgtg	ggctcccagc	tgactggcca	atttaaggtg	480
cggcttgaac	ggagctctct	acttcgtgtc	catggacgcg	gatggtggcg	tgagcaagta	540
tcccaccaac	accgctggcg	ccaagtacgg	cacgggggtac	tgtgacagcc	agtgtcccg	600
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cgcaaacacg	ggcattggag	gacacggaag	ctgctgctct	gagatggata	tctgggaggc	720
caactccatc	tccgaggctc	ttacccccca	cccttgacg	actgtcggcc	aggagatctg	780
cgagggtgat	gggtgcggcg	gaacttactc	cgataacaga	tatggcggca	cttgcgatcc	840
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aagctttacc	ctcgatacca	ccaagaaatt	gaccgttgtc	acccagttcg	agacgtcggg	960
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cggcggtatc	tctttctcag	acaaggggcg	cctgactcag	ttcaagaagg	ctacctctgg	1140
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ttgacaaaga	gtcaagcagc	tgactgagat	gttacagtac	tacgccaaca	tgctgtggct	1260
ggactccacc	taccgacaa	acgagacctc	ctccacacc	ggtgccgtgc	gcggaagctg	1320
ctccaccagc	tccggtgtcc	ctgctcaggt	cgaatctcag	tctcccaacg	ccaaggtcac	1380
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<210> 4

<211> 81

<212> DNA

<213> *Trichoderma reesei*

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<210> 5

<211> 480

<212> PRT

<213> *Trichoderma reesei*

<400> 5

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Ala	Gln	Ser	Ala	Cys	Thr	Leu	Gln	Ser	Glu	Thr	His	Pro	Pro	Leu	Thr	20	25	30	
Trp	Gln	Lys	Cys	Ser	Ser	Gly	Gly	Thr	Cys	Thr	Gln	Gln	Thr	Gly	Ser	35	40	45	
Val	Val	Ile	Asp	Ala	Asn	Trp	Arg	Trp	Thr	His	Ala	Thr	Asn	Ser	Ser	50	55	60	
Thr	Asn	Cys	Tyr	Asp	Gly	Asn	Thr	Trp	Ser	Ser	Thr	Leu	Cys	Pro	Asp	65	70	75	80
Asn	Glu	Thr	Cys	Ala	Lys	Asn	Cys	Cys	Leu	Asp	Gly	Ala	Ala	Tyr	Ala	85	90	95	
Ser	Thr	Tyr	Gly	Val	Thr	Thr	Ser	Gly	Asn	Ser	Leu	Ser	Ile	Gly	Phe	100	105	110	
Val	Thr	Gln	Ser	Ala	Gln	Lys	Asn	Val	Gly	Ala	Arg	Leu	Tyr	Leu	Met	115	120	125	
Ala	Ser	Asp	Thr	Thr	Tyr	Gln	Glu	Phe	Thr	Leu	Leu	Gly	Asn	Glu	Phe	130	135	140	
Ser	Phe	Asp	Val	Asp	Val	Ser	Gln	Leu	Pro	Cys	Gly	Leu	Asn	Gly	Ala	145	150	155	160
Leu	Tyr	Phe	Val	Ser	Met	Asp	Ala	Asp	Gly	Gly	Val	Ser	Lys	Tyr	Pro	165	170	175	
Thr	Asn	Thr	Ala	Gly	Ala	Lys	Tyr	Gly	Thr	Gly	Tyr	Cys	Asp	Ser	Gln	180	185	190	
Cys	Pro	Arg	Asp	Leu	Lys	Phe	Ile	Asn	Gly	Gln	Ala	Asn	Val	Glu	Gly	195	200	205	
Trp	Glu	Pro	Ser	Ser	Asn	Asn	Ala	Asn	Thr	Gly	Ile	Gly	Gly	His	Gly	210	215	220	
Ser	Cys	Cys	Ser	Glu	Met	Asp	Ile	Trp	Glu	Ala	Asn	Ser	Ile	Ser	Glu	225	230	235	240
Ala	Leu	Thr	Pro	His	Pro	Cys	Thr	Thr	Val	Gly	Gln	Glu	Ile	Cys	Glu	245	250	255	
Gly	Asp	Gly	Cys	Gly	Gly	Thr	Tyr	Ser	Asp	Asn	Arg	Tyr	Gly	Gly	Thr	260	265	270	
Cys	Asp	Pro	Asp	Gly	Cys	Asp	Trp	Asn	Pro	Tyr	Arg	Leu	Gly	Asn	Thr	275	280	285	
Ser	Phe	Tyr	Gly	Pro	Gly	Ser	Ser	Phe	Thr	Leu	Asp	Thr	Thr	Lys	Lys	290	295	300	
Leu	Thr	Val	Val	Thr	Gln	Phe	Glu	Thr	Ser	Gly	Ala	Ile	Asn	Arg	Tyr	305	310	315	320
Tyr	Val	Gln	Asn	Gly	Val	Thr	Phe	Gln	Gln	Pro	Asn	Ala	Glu	Leu	Gly	325	330	335	
Ser	Tyr	Ser	Gly	Asn	Glu	Leu	Asn	Asp	Asp	Tyr	Cys	Thr	Ala	Glu	Glu	340	345	350	
Ala	Glu	Phe	Gly	Gly	Ser	Ser	Phe	Ser	Asp	Lys	Gly	Gly	Leu	Thr	Gln	355	360	365	
Phe	Lys	Lys	Ala	Thr	Ser	Gly	Gly	Met	Val	Leu	Val	Met	Ser	Leu	Trp	370	375	380	
Asp	Asp	Tyr	Tyr	Ala	Asn	Met	Leu	Trp	Leu	Asp	Ser	Thr	Tyr	Pro	Thr	385	390	395	400
Asn	Glu	Thr	Ser	Ser	Thr	Pro	Gly	Ala	Val	Arg	Gly	Ser	Cys	Ser	Thr	405	410	415	
Ser	Ser	Gly	Val	Pro	Ala	Gln	Val	Glu	Ser	Gln	Ser	Pro	Asn	Ala	Lys	420	425	430	
Val	Thr	Phe	Ser	Asn	Ile	Lys	Phe	Gly	Pro	Ile	Gly	Ser	Thr	Gly	Asn	435	440	445	
Pro	Ser	Gly	Gly	Asn	Pro	Pro	Gly	Gly	Asn	Pro	Pro	Gly	Thr	Thr	Thr				

450 455 460
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 465 470 475 480

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 <211> 431
 <212> PRT
 <213> Trichoderma reesei

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 20 25 30
 Val Ile Asp Ala Asn Trp Arg Trp Thr His Ala Thr Asn Ser Ser Thr
 35 40 45
 Asn Cys Tyr Asp Gly Asn Thr Trp Ser Ser Thr Leu Cys Pro Asp Asn
 50 55 60
 Glu Thr Cys Ala Lys Asn Cys Cys Leu Asp Gly Ala Ala Tyr Ala Ser
 65 70 75 80
 Thr Tyr Gly Val Thr Thr Ser Gly Asn Ser Leu Ser Ile Gly Phe Val
 85 90 95
 Thr Gln Ser Ala Gln Lys Asn Val Gly Ala Arg Leu Tyr Leu Met Ala
 100 105 110
 Ser Asp Thr Thr Tyr Gln Glu Phe Thr Leu Leu Gly Asn Glu Phe Ser
 115 120 125
 Phe Asp Val Asp Val Ser Gln Leu Pro Cys Gly Leu Asn Gly Ala Leu
 130 135 140
 Tyr Phe Val Ser Met Asp Ala Asp Gly Gly Val Ser Lys Tyr Pro Thr
 145 150 155 160
 Asn Thr Ala Gly Ala Lys Tyr Gly Thr Gly Tyr Cys Asp Ser Gln Cys
 165 170 175
 Pro Arg Asp Leu Lys Phe Ile Asn Gly Gln Ala Asn Val Glu Gly Trp
 180 185 190
 Glu Pro Ser Ser Asn Asn Ala Asn Thr Gly Ile Gly Gly His Gly Ser
 195 200 205
 Cys Cys Ser Glu Met Asp Ile Trp Glu Ala Asn Ser Ile Ser Glu Ala
 210 215 220
 Leu Thr Pro His Pro Cys Thr Thr Val Gly Gln Glu Ile Cys Glu Gly
 225 230 235 240
 Asp Gly Cys Gly Gly Thr Tyr Ser Asp Asn Arg Tyr Gly Gly Thr Cys
 245 250 255
 Asp Pro Asp Gly Cys Asp Trp Asn Pro Tyr Arg Leu Gly Asn Thr Ser
 260 265 270
 Phe Tyr Gly Pro Gly Ser Ser Phe Thr Leu Asp Thr Thr Lys Lys Leu
 275 280 285
 Thr Val Val Thr Gln Phe Glu Thr Ser Gly Ala Ile Asn Arg Tyr Tyr
 290 295 300
 Val Gln Asn Gly Val Thr Phe Gln Gln Pro Asn Ala Glu Leu Gly Ser
 305 310 315 320
 Tyr Ser Gly Asn Glu Leu Asn Asp Asp Tyr Cys Thr Ala Glu Glu Ala
 325 330 335
 Glu Phe Gly Gly Ser Ser Phe Ser Asp Lys Gly Gly Leu Thr Gln Phe
 340 345 350
 Lys Lys Ala Thr Ser Gly Gly Met Val Leu Val Met Ser Leu Trp Asp
 355 360 365
 Asp Tyr Tyr Ala Asn Met Leu Trp Leu Asp Ser Thr Tyr Pro Thr Asn

370	375	380
Glu Thr Ser Ser Thr Pro Gly Ala Val Arg Gly Ser Cys Ser Thr Ser		
385	390	395
Ser Gly Val Pro Ala Gln Val Glu Ser Gln Ser Pro Asn Ala Lys Val		
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Thr Phe Ser Asn Ile Lys Phe Gly Pro Ile Gly Ser Thr Gly Asn		
420	425	430

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 <211> 1077
 <212> DNA
 <213> Acidothermus cellulolyticus

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ctctggtcac gcgactaccg cagcatgctc gaccagataa agtcgctcgg ctacaacaca	180
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ttttaccaga tgaatcagga cctgcagggt ctgacgtcct tgcaggtcac ggacaaaatc	300
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 <212> PRT
 <213> Acidothermus cellulolyticus

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35	45
Met Leu Asp Gln Ile Lys Ser Leu Gly Tyr Asn Thr Ile Arg Leu Pro	
50	60
Tyr Ser Asp Asp Ile Leu Lys Pro Gly Thr Met Pro Asn Ser Ile Asn	
65	80
Phe Tyr Gln Met Asn Gln Asp Leu Gln Gly Leu Thr Ser Leu Gln Val	
85	95
Met Asp Lys Ile Val Ala Tyr Ala Gly Gln Ile Gly Leu Arg Ile Ile	
100	110
Leu Asp Arg His Arg Pro Asp Cys Ser Gly Gln Ser Ala Leu Trp Tyr	
115	125
Thr Ser Ser Val Ser Glu Ala Thr Trp Ile Ser Asp Leu Gln Ala Leu	
130	140

Ala	Gln	Arg	Tyr	Lys	Gly	Asn	Pro	Thr	Val	Val	Gly	Phe	Asp	Leu	His
145					150					155					160
Asn	Glu	Pro	His	Asp	Pro	Ala	Cys	Trp	Gly	Cys	Gly	Asp	Pro	Ser	Ile
				165					170						175
Asp	Trp	Arg	Leu	Ala	Ala	Glu	Arg	Ala	Gly	Asn	Ala	Val	Leu	Ser	Val
			180					185					190		
Asn	Pro	Asn	Leu	Leu	Ile	Phe	Val	Glu	Gly	Val	Gln	Ser	Tyr	Asn	Gly
	195					200						205			
Asp	Ser	Tyr	Trp	Trp	Gly	Gly	Asn	Leu	Gln	Gly	Ala	Gly	Gln	Tyr	Pro
	210					215					220				
Val	Val	Leu	Asn	Val	Pro	Asn	Arg	Leu	Val	Tyr	Ser	Ala	His	Asp	Tyr
225					230					235					240
Ala	Thr	Ser	Val	Tyr	Pro	Gln	Thr	Trp	Phe	Ser	Asp	Pro	Thr	Phe	Pro
				245					250					255	
Asn	Asn	Met	Pro	Gly	Ile	Trp	Asn	Lys	Asn	Trp	Gly	Tyr	Leu	Phe	Asn
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Gln	Asn	Ile	Ala	Pro	Val	Trp	Leu	Gly	Glu	Phe	Gly	Thr	Thr	Leu	Gln
	275						280					285			
Ser	Thr	Thr	Asp	Gln	Thr	Trp	Leu	Lys	Thr	Leu	Val	Gln	Tyr	Leu	Arg
	290					295					300				
Pro	Thr	Ala	Gln	Tyr	Gly	Ala	Asp	Ser	Phe	Gln	Trp	Thr	Phe	Trp	Ser
305					310					315					320
Trp	Asn	Pro	Asp	Ser	Gly	Asp	Thr	Gly	Gly	Ile	Leu	Lys	Asp	Asp	Trp
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Gln	Thr	Val	Asp	Thr	Val	Lys	Asp	Gly	Tyr	Leu	Ala	Pro	Ile	Lys	Ser
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<210> 9
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 <212> DNA
 <213> Acidothermus cellulolyticus

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acgtacatga	tcccgcagca	cgcggaccag ccgaacaacg cgtcgtacaa cccaacagc 300
ccggcgctcg	acgctccgga	agagecgcgtg cccagcatgt acccggttgc catcgacagc 360
agcgtgccgg	ttgggcacga	cccgcctcgcc gccgaattgc agtcgacgta cggcactccg 420
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cagcgcggtc	cgcaggagtc	cgtctgggag acggtcaccc agccgacgtg cgacaacggc 600
aagtacgggtg	gggcgcacgg	ctacgtcgac ctgttcatcc agggttcgac gccgcccagc 660
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tacacctg		